

REPORT ON MACHINERY.

Port of *Newcastle*No. in Survey held at *South Shields*Date, first Survey *4th May 99* Last Survey *Wed. 25 Oct 1899*

Reg. Book.

(Number of Visits *13*)on the *S.S. Trevesa*Master *J. Quiller* Built at *South Shields* By whom built *J. Readman & Sons*Engines made at *S. Shields* By whom made *J. Readman & Sons*Boilers made at *S. Shields* By whom made *J. Readman & Sons*

Registered Horse Power

Owners *E. Hainy & Son*Port belonging to *St. Ives*Nom. Horse Power as per Section 28 *293*Is Refrigerating Machinery fitted *No*Is Electric Light fitted *No*Tons { Gross *3477*
Net *2296*
When built *1899*when made *1899*when made *1899*ENGINES, &c.—Description of Engines *Triple Expansion*No. of Cylinders *3*No. of Cranks *3*

Dia. of Cylinders *24" 40" 65"* Length of Stroke *45"* Revs. per minute *60* Dia. of Screw shaft as per rule *12"* as fitted *12"* Lgth. of stern bush *4'-4"*
 Dia. of Tunnel shaft as per rule *10.9* as fitted *11.5* Dia. of Crank shaft journals as per rule *11.5* as fitted *12.4* Dia. of Crank pin *12.4* Size of Crank webs *8 1/2 x 16* Dia. of thrust shaft under collars *12 3/4"* Dia. of screw *16-3"* Pitch of screw *15-0" 6 17-6"* No. of blades *4* State whether moveable *No* Total surface *71.58*

No. of Feed pumps *2* Diameter of ditto *3 1/2"* Stroke *24"* Can one be overhauled while the other is at work *Yes*No. of Bilge pumps *2* Diameter of ditto *4 3/8"* Stroke *24"* Can one be overhauled while the other is at work *Yes*No. of Donkey Engines *2* Sizes of Pumps *6x4x6" 13 1/2 x 9 x 13"* No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room *Two wing 3 1/2" two centre 3 1/2"* In Holds, &c. *Two in each hold 3 1/2" dia. one*
*in after hold 2 1/2" dia*No. of bilge injections *1* sizes *5 1/2"* Connected to condenser, to circulating pump *Yes* Is a separate donkey suction fitted in Engine room & size *Yes 3 1/2"*Are all the bilge suction pipes fitted with roses *Yes* Are the roses in Engine room always accessible *Yes* Are the sluices on Engine room bulkheads always accessible *Yes*Are all connections with the sea direct on the skin of the ship *Yes* Are they Valves or Cocks *Both*Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates *Yes* Are the discharge pipes above or below the deep water line *Above*Are they each fitted with a discharge valve always accessible on the plating of the vessel *Yes* Are the blow off cocks fitted with a spigot and brass covering plate *Yes*What pipes are carried through the bunkers *None* How are they protected *—*Are all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times *Yes*Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges *Yes*When were stern tube, propeller, screw shaft, and all connections examined in dry dock *Nov* Is the screw shaft tunnel watertight *Yes*Is it fitted with a watertight door *Yes* worked from *Upper platform*BOILERS, &c.— (Letter for record *K*) Total Heating Surface of Boilers *4557 1/2* Is forced draft fitted *No*No. and Description of Boilers *Two cylindrical single ends* Working Pressure *160* Tested by hydraulic pressure to *320*Date of test *9/9/99* Can each boiler be worked separately *Yes* Area of fire grate in each boiler *52 1/2* No. and Description of safety valves to each boiler *Two spring valves* Area of each valve *7.07 1/2* Pressure to which they are adjusted *165 lbs* Are they fitted with easing gear *Yes*Smallest distance between boilers or uptakes and bunkers or woodwork *12"* Mean dia. of boilers *15-7"* Length *10-4"* Material of shell plates *S*Thickness *1 3/16"* Range of tensile strength *27-32* Are they welded or flanged *Flanged* Descrip. of riveting: cir. seams *Lept double long. seams d.b. with*Diameter of rivet holes in long. seams *1 3/8"* Pitch of rivets *8 1/2"* Lap of plates or width of butt straps *1'-9 1/2"*Per centages of strength of longitudinal joint rivets *84.5* Working pressure of shell by rules *160* Size of manhole in shell *12 x 16"*Size of compensating ring *6 x 1 3/16"* No. and Description of Furnaces in each boiler *3 Furnaces* Material *S* Outside diameter *3'-7 1/4"*Length of plain part top *—* bottom *—* Thickness of plates crown *3 1/2"* Description of longitudinal joint *Welded* No. of strengthening rings *—*Working pressure of furnace by the rules *161* Combustion chamber plates: Material *S* Thickness: Sides *5/8"* Back *5/8"* Top *5/8"* Bottom *7/8"*Pitch of stays to ditto: Sides *8 1/2"* Back *9"* Top *finder* If stays are fitted with nuts or riveted heads *Nuts* Working pressure by rules *167*Material of stays *Iron* Diameter at smallest part *1 5/8"* Area supported by each stay *76 1/2"* Working pressure by rules *195* End plates in steam space:Material *S* Thickness *1 3/2"* Pitch of stays *17 5/8"* How are stays secured *d.n.w.* Working pressure by rules *161* Material of stays *S*Diameter at smallest part *5.05"* Area supported by each stay *304"* Working pressure by rules *180* Material of Front plates at bottom *S*Thickness *3/4"* Material of Lower back plate *S* Thickness *1 3/16"* Greatest pitch of stays *11 1/2"* Working pressure of plate by rules *180*Diameter of tubes *3 1/2"* Pitch of tubes *4 3/4"* Material of tube plates *S* Thickness: Front *3/4"* Back *3/4"* Mean pitch of stays *9 1/2"*Pitch across wide water spaces *14"* Working pressures by rules *182* Girders to Chamber tops: Material *S* Depth andthickness of girder at centre *8 x 1 1/2"* Length as per rule *28"* Distance apart *8 1/2"* Number and pitch of Stays in each *2, 8"*Working pressure by rules *200* Superheater or Steam chest; how connected to boiler *—* Can the superheater be shut off and the boiler workedseparately *—* Diameter *—* Length *—* Thickness of shell plates *—* Material *—* Description of longitudinal joint *—* Diam. of rivetholes *—* Pitch of rivets *—* Working pressure of shell by rules *—* Diameter of flue *—* Material of flue plates *—* Thickness *—*If stiffened with rings *—* Distance between rings *—* Working pressure by rules *—* End plates: Thickness *—* How stayed *—*Working pressure of end plates *—* Area of safety valves to superheater *—* Are they fitted with easing gear *—*

Working pressure of furnace by rules 112
Diameter of uptake 20 1/8 Thickness of plates 1 1/2
SPARE GEAR. State the articles supplied:— One propeller, one propeller shaft, 1/2 crank shaft
Two top end & two bottom end connecting rod bolts & nuts. Two main
bearing bolts. one set coupling bolts. one set feed & bill pump valves
assorted bolts & nuts. Iron of various sizes.

Manufacturer.

Is the approved plan of main boiler forwarded herewith Yes
 " " donkey " " " No.

General Remarks (State quality of workmanship, opinions as to class, &c.)

The machinery of this vessel has been built under special survey the materials and workmanship are sound and good and under the vessel up to in my opinion to have the word of + L.M.C. 10.99

Wm. B. D.
 25/10/99.
E. S.
 25.10.99

When received.

FRI 27 OCT 1999

Assigned

+ R.M.C. 10.99

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping

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